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(54) Title: **APPARATUS AND METHOD FOR WELDING DUPLEX STAINLESS STEEL**

(57) Abstract: Arc welding of duplex stainless steel tubing is accomplished using a non-pulsed electric arc and a high refractory weld flux. Weld beads, uniform throughout their lengths, and having a duplex phase structure and desirable profile are produced by single pass orbital welding, even if the wall thickness of the duplex tubing exceeds 2 mm.

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